

FIG. 1

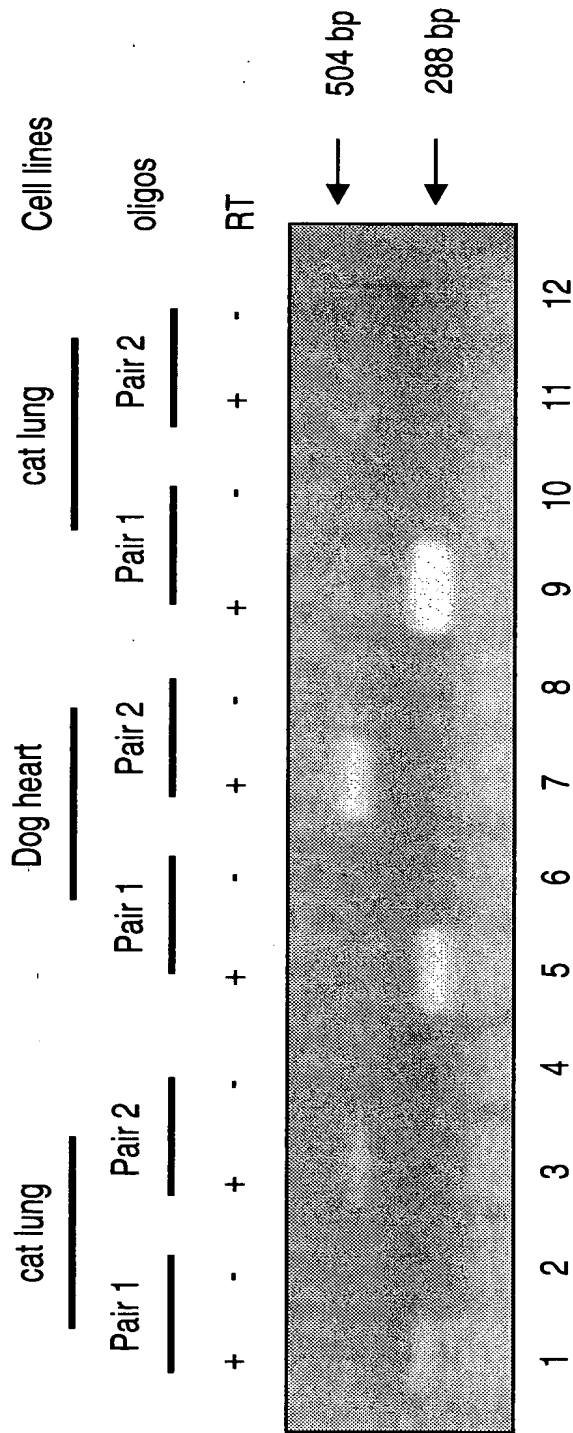


FIG. 2

GCTATACTCGGGCGCGGTACCATAACTTTCGTATAGCATAACATTATACGAAGTTAT
CGGAGGAATTGGCTCGAGGAATTGCCCTTCTAATACGACTCACTATAGGGCAAGC
AGTGGTAACAACGCAGAGTACGCGGGAGCACGGACCGGCGGGGGGCGAGCGAGATG
CAGGCCCGGGGGGGCCCCAGCCTCGGGCTGACGTGCGTGCTGATCCTCATCTTCA
CTGTGCTGCTCCAGTCCCTCTGCGTGCGCGTCACCTACATGTACTTCACCAGGGA
GCTGAAGCAGATGCAGGACAAGTACTCCCAAAGTGGCATCGCTTGTTTCTTAAAG
GAAGATGATATCCCCTGGGACCCAGTGATGAAGAGAGTATGAACAACCCCTGCT
GGCAAGTGAAGTGGCAACTCCGCCAGTTTGTTAGAAAGATGATTTTGAAAACCTA
TGAGGAAACCATTCTACAGCTCCAGAAAAGCAGCTAAATATTCTTACGTAGTA
AGCGACCGAGGTTCTCAGAGAGTAGCTGCTCACATAACTGGAACCAAGTCGGAGAA
GCATGTTTCCAATTCCAAGCTCCAAGAATGATAAAGCTTTGGGCCACAAAATAAA
CTCCTGGGATTCCACAAGAAAAGGACATTCATTCTTGAATAATTTGCACTTGAGG
AACGGAGAGCTGGTTATCCATCAAAGGGGGTTTTATTACATCTATTCCCAAACAT
ACTTTCGATTTTCAGGAACCTGAGGAAATTCCAACAGGACAGAACAGAAAGAGAAA
CAAACAAATGGTCCAATATATTTACAAACACACGAGTTATCCGGACCCTATACTG
CTGATGAAAAGTGCTAGAAATAGTTGTTGGTCTAAAGATTCTGAATATGGACTCT
ATTCCATCTATCAAGGTGGGATATTTGAGCTTAAGGAAAACGATAGAATTTTTGT
CTCTGTATCTAACGAGCAATTGATTGACATGGACCAAGAAGCCAGTTTTTTTCGGG
GCCTTTTTTAATCGGCTAAATACGCTGCAAAGAAAAAAAACGTATTCTTTATTC
ACAGCAAAGCAAGGACATCTAAGCAAAGTCACGTCAACCAAAGAGTAACACGCC
TTTCTCAAACATCTCTGAAAATGACCAAGTCATTCTCAGAAAATGAAATTGCCGA
AGACCTTTCCAGGCACTACCAAGAGATCAGTTTGCTAGCAGAAACCTAGAAGATT
CTGTAAGCAGCTGTCTTTATTATCTACTCTTGGAAGACCCAGAAGCAAGATTA

FIG. 3

MQAPGGPSLGLTCVLILIFTVLLQSLCVAVTYMYFTRELKQMQDKYSQSGIACFL
KEDDIPWDPSDEESMNNPCWQVKWQLRQFVRKMILKTYEETIPTAPEKQLNIPYV
VSDRGSQRVAAHITGTSRRSMFPIIPSSKNDKALGHKINSWDSTRKGHSFLNNLHL
RNGELVIHQRGFYIYSQTYFRFQEP EEIPTGQNRKRKQMVQYIYKHTSYDPDI
LLMKSARNSCWSKDSEYGLYSIQGGIFELKENDRIFVSVSNEQLIDMDQEASFF
GAFLIG

FIG. 4

GAATTGCCCTTCTAATACGACTCCCTATAGGGCAAGCAGTGGTAACAACGCAGAG
TACGCGGGGGCAGCAGTGA CTGTCGGAGAGGACAGGACCGTGGTTCGAGATGCAGG
CCCCGGCGGGCCCCAGTCCCGGGCAGACCTGCGTGCTGATCCTGATCTTCACTGT
GCTCCTGCAGTCCCTCTGCGTGGCCGTGACTTACATGTACTTCACCAGTGA ACTG
AGGCAGATGCAGGACAAATACTCCCAAAGTGGCATTGCTTGTTTCTTAAAGGAAG
ACGATATCCCTTGGGACCCCAATGATGAAGAGAGTATGAACACCCCGTGCTGGCA
AGTGAAATGGCAGCTCCGTCAGTTTGTTAGAAAGATTTTGAGAACCTATGAGGAA
ACCATTCCTACAGTTCCAGAAAAGCAGCTAAATATTCCTTACCTAGTAAGAGAAA
GAGGTCCTCAGAGAGTAGCAGCTCACATAACTGGAACCAGTCGGAGAAGAAGCAC
ATTCCAGTTCCAAGCTCCAAGAATGAAAAAGCTTTGGGTCAGAAAATAAACTCC
TGGGAGTCATCAAGAAAAGGACATTCATTCTTGAATAATTTGCACTTGAGGAATG
GTGAGCTGGTTATTCATCAGAGGGGGTTTTATTACATCTATTCCCAAACATACTT
TCGATTT CAGGAACCTGAGGAAATTCCAACAGGACAGAACAGAAAGAGAAACAAA
CAAATGGTCCAATATATTTACAAACACACGAGTTATCCGGACCCTATACTGCTGA
TGAAAAGTGCTAGAAATAGTTGTTGGTCTAAAGATTCTGAATATGGACTCTATTC
CATCTATCAAGGTGGGATATTTGAGCTTAAGGAAAACGATAGAATTTTTGTCTCT
GTATCTAACGAGCAATTGATTGACATGGACCAAGAAGCCAGTTTTTTTCGGGGCCT
TTTTAATCGGCTAAATACGCTGCAAAGAAAAAAAACCTGTATTCTTTATTCACAG
CAAAGCAAGGACATCTAAGCAAAGTCACGTCAACCAAAGAGTAACACGCCTTTC
TCAAACATCTCTGAAAATGACCAAGTCATTCTCAGAAAATGAAATTGCCGAAGAC
CTTTCCAGGCACTACCAGAGATCAGTTTGCTAGCAGAAACCTAGAAGATTCTGTA
AGCAGCTG

FIG. 5

MQAPAGPSPGQTCVLILIFTVLLQSLCVAVTYMYFTSELRQMQDKYSQSGIACFL
KEDDIPWDPNDEESMNTPCWQVKWQLRQFVRKILRTYEETIPTVPEKQLNIPYLV
RERGPQ RVAAHITGTSRRRSTFPVPSSKNEKALGQKINSWESSRKGHSFLNNLHL
RNGELVIHQRGFYIYSQTYFRFQEP E EIPTGQNRKR NKQMVQYIYKHTSYDPDI
LLMKSARNSCWSKDSEYGLYSIYQGGIFELKENDRIFVSVSNEQLIDMDQEASFF
GAFLIG

72	Ser	Met	Asn	Ser	Pro	Cys	Trp	Gln	Val	Lys	Trp	Gln	Leu	Arg	Gln	hu_Trail.PRO
76	Ile	Leu	Asn	Arg	Pro	Cys	Leu	Gln	Val	Lys	Arg	Gln	Leu	Tyr	Gln	mo_Trail.PRO
69	Ser	Met	Asn	Asn	Pro	Cys	Trp	Gln	Val	Lys	Trp	Gln	Leu	Arg	Gln	canine_Trail.PRO
69	Ser	Met	Asn	Thr	Pro	Cys	Trp	Gln	Val	Lys	Trp	Gln	Leu	Arg	Gln	feline_Trail.PRO
<hr/>																
87	Leu	Val	Arg	Lys	Met	Ile	Leu	Arg	Thr	Ser	Glu	Glu	Thr	Ile	Ser	hu_Trail.PRO
91	Leu	Ile	Glu	Glu	Val	Thr	Leu	Arg	Thr	Phe	Gln	Asp	Thr	Ile	Ser	mo_Trail.PRO
84	Phe	Val	Arg	Lys	Met	Ile	Leu	Lys	Thr	Tyr	Glu	Glu	Thr	Ile	Pro	canine_Trail.PRO
84	Phe	Val	Arg	Lys	-	Ile	Leu	Arg	Thr	Tyr	Glu	Glu	Thr	Ile	Pro	feline_Trail.PRO
<hr/>																
102	Thr	Val	Gln	Glu	Lys	Gln	Gln	Asn	Ile	Ser	Pro	Leu	Val	Arg	Glu	hu_Trail.PRO
106	Thr	Val	Pro	Glu	Lys	Gln	Leu	Ser	Thr	Pro	Pro	Leu	Pro	Arg	Gly	mo_Trail.PRO
99	Thr	Ala	Pro	Glu	Lys	Gln	Leu	Asn	Ile	Pro	Tyr	Val	Val	Ser	Asp	canine_Trail.PRO
98	Thr	Val	Pro	Glu	Lys	Gln	Leu	Asn	Ile	Pro	Tyr	Leu	Val	Arg	Glu	feline_Trail.PRO
<hr/>																
117	Arg	Gly	Pro	Gln	Arg	Val	Ala	Ala	His	Ile	Thr	Gly	Thr	Arg	Gly	hu_Trail.PRO
121	Gly	Arg	Pro	Gln	Lys	Val	Ala	Ala	His	Ile	Thr	Gly	Ile	Thr	Arg	mo_Trail.PRO
114	Arg	Gly	Ser	Gln	Arg	Val	Ala	Ala	His	Ile	Thr	Gly	Thr	Ser	Arg	canine_Trail.PRO
113	Arg	Gly	Pro	Gln	Arg	Val	Ala	Ala	His	Ile	Thr	Gly	Thr	Ser	Arg	feline_Trail.PRO
<hr/>																
132	Arg	Ser	Asn	Thr	Leu	Ser	Ser	Pro	Asn	Ser	Lys	Asn	Glu	Lys	Ala	hu_Trail.PRO
136	Arg	Ser	Asn	Ser	Ala	Leu	Ile	Pro	Ile	Ser	Lys	Asp	Gly	Lys	Thr	mo_Trail.PRO
129	Arg	-	Ser	Met	Phe	Pro	Ile	Pro	Ser	Ser	Lys	Asn	Asp	Lys	Ala	canine_Trail.PRO
128	Arg	Arg	Ser	Thr	Phe	Pro	Val	Pro	Ser	Ser	Lys	Asn	Glu	Lys	Ala	feline_Trail.PRO

FIG. 6C

160																
147	Leu	Gly	Arg	Lys	Ile	Asn	Ser	Trp	Glu	Ser	Ser	Arg	Ser	Gly	His	hu_Trail.PRO
151	Leu	Gly	Gln	Lys	Ile	Glu	Ser	Trp	Glu	Ser	Ser	Arg	Lys	Gly	His	mo_Trail.PRO
143	Leu	Gly	His	Lys	Ile	Asn	Ser	Trp	Asp	Ser	Thr	Arg	Lys	Gly	His	canine_Trail.PRO
143	Leu	Gly	Gln	Lys	Ile	Asn	Ser	Trp	Glu	Ser	Ser	Arg	Lys	Gly	His	feline_Trail.PRO
170																
180																
162	Ser	Phe	Leu	Ser	Asn	Leu	His	Leu	Arg	Asn	Gly	Glu	Leu	Val	Ile	hu_Trail.PRO
166	Ser	Phe	Leu	Asn	His	Val	Leu	Phe	Arg	Asn	Gly	Glu	Leu	Val	Ile	mo_Trail.PRO
158	Ser	Phe	Leu	Asn	Asn	Leu	His	Leu	Arg	Asn	Gly	Glu	Leu	Val	Ile	canine_Trail.PRO
158	Ser	Phe	Leu	Asn	Asn	Leu	His	Leu	Arg	Asn	Gly	Glu	Leu	Val	Ile	feline_Trail.PRO
190																
177	His	Glu	Lys	Gly	Phe	Tyr	Tyr	Ile	Tyr	Ser	Gln	Thr	Tyr	Phe	Arg	hu_Trail.PRO
181	Glu	Gln	Glu	Gly	Leu	Tyr	Tyr	Ile	Tyr	Ser	Gln	Thr	Tyr	Phe	Arg	mo_Trail.PRO
173	His	Gln	Arg	Gly	Phe	Tyr	Tyr	Ile	Tyr	Ser	Gln	Thr	Tyr	Phe	Arg	canine_Trail.PRO
173	His	Gln	Arg	Gly	Phe	Tyr	Tyr	Ile	Tyr	Ser	Gln	Thr	Tyr	Phe	Arg	feline_Trail.PRO
200																
210																
192	Phe	Gln	Glu	-	-	Glu	Ile	Lys	-	-	-	-	Glu	Asn	Thr	hu_Trail.PRO
196	Phe	Gln	Glu	Ala	Glu	Asp	Ala	Ser	Lys	Met	Val	Ser	Lys	Asp	Lys	mo_Trail.PRO
188	Phe	Gln	Glu	Pro	Glu	Glu	Ile	Pro	Thr	-	-	Gly	Gln	Asn	Arg	canine_Trail.PRO
188	Phe	Gln	Glu	Pro	Glu	Glu	Ile	Pro	Thr	-	-	Gly	Gln	Asn	Arg	feline_Trail.PRO
220																
201	Lys	Asn	Asp	Lys	Gln	Met	Val	Gln	Tyr	Ile	Tyr	Lys	Tyr	Thr	Ser	hu_Trail.PRO
211	Val	Arg	Thr	Lys	Gln	Leu	Val	Gln	Tyr	Ile	Tyr	Lys	Tyr	Thr	Ser	mo_Trail.PRO
201	Lys	Arg	Asn	Lys	Gln	Met	Val	Gln	Tyr	Ile	Tyr	Lys	His	Thr	Ser	canine_Trail.PRO
201	Lys	Arg	Asn	Lys	Gln	Met	Val	Gln	Tyr	Ile	Tyr	Lys	His	Thr	Ser	feline_Trail.PRO

FIG. 6D

230																240																
216	Tyr	Pro	Asp	Pro	Ile	Leu	Leu	Met	Lys	Ser	Ala	Arg	Asn	Ser	Cys	hu_Trail.PRO																
226	Tyr	Pro	Asp	Pro	Ile	Val	Leu	Met	Lys	Sér	Ala	Arg	Asn	Ser	Cys	mo_Trail.PRO																
216	Tyr	Pro	Asp	Pro	Ile	Leu	Leu	Met	Lys	Ser	Ala	Arg	Asn	Ser	Cys	canine_Trail.PRO																
216	Tyr	Pro	Asp	Pro	Ile	Leu	Leu	Met	Lys	Ser	Ala	Arg	Asn	Ser	Cys	feline_Trail.PRO																
250																																
231	Trp	Ser	Lys	Asp	Ala	Glu	Tyr	Gly	Leu	Tyr	Ser	Ile	Tyr	Gln	Gly	hu_Trail.PRO																
241	Trp	Ser	Arg	Asp	Ala	Glu	Tyr	Gly	Leu	Tyr	Ser	Ile	Tyr	Gln	Gly	mo_Trail.PRO																
231	Trp	Ser	Lys	Asp	Ser	Glu	Tyr	Gly	Leu	Tyr	Ser	Ile	Tyr	Gln	Gly	canine_Trail.PRO																
231	Trp	Ser	Lys	Asp	Ser	Glu	Tyr	Gly	Leu	Tyr	Ser	Ile	Tyr	Gln	Gly	feline_Trail.PRO																
260																																
246	Gly	Ile	Phe	Glu	Leu	Lys	Glu	Asn	Asp	Arg	Ile	Phe	Val	Ser	Val	hu_Trail.PRO																
256	Gly	Leu	Phe	Glu	Leu	Lys	Lys	Asn	Asp	Arg	Ile	Phe	Val	Ser	Val	mo_Trail.PRO																
246	Gly	Ile	Phe	Glu	Leu	Lys	Glu	Asn	Asp	Arg	Ile	Phe	Val	Ser	Val	canine_Trail.PRO																
246	Gly	Ile	Phe	Glu	Leu	Lys	Glu	Asn	Asp	Arg	Ile	Phe	Val	Ser	Val	feline_Trail.PRO																
280																																
261	Thr	Asn	Glu	His	Leu	Ile	Asp	Met	Asp	His	Glu	Ala	Ser	Phe	Phe	hu_Trail.PRO																
271	Thr	Asn	Glu	His	Leu	Met	Asp	Leu	Asp	Gln	Glu	Ala	Ser	Phe	Phe	mo_Trail.PRO																
261	Ser	Asn	Glu	Gln	Leu	Ile	Asp	Met	Asp	Gln	Glu	Ala	Ser	Phe	Phe	canine_Trail.PRO																
261	Ser	Asn	Glu	Gln	Leu	Ile	Asp	Met	Asp	Gln	Glu	Ala	Ser	Phe	Phe	feline_Trail.PRO																
290																																
276	Gly	Ala	Phe	Leu	Val	Gly	ter																									hu_Trail.PRO
286	Gly	Ala	Phe	Leu	Ile	Asn	ter																									mo_Trail.PRO
276	Gly	Ala	Phe	Leu	Ile	Gly	ter																									canine_Trail.PRO
276	Gly	Ala	Phe	Leu	Ile	Gly	ter																									feline_Trail.PRO

FIG. 7A

		Majority									
		10	20	30	40						
V R E R G P Q R V A A H I T G T S R R S S T F P I P S S K N E K A L G Q K I N S											
1	V R E R G P Q R V A A H I T G T S R R S S T F P I P S S K N E K A L G Q K I N S										
1	P R G G R P Q K V A A H I T G T S R R S S T F P I P S S K N E K A L G Q K I N S										
1	V S D R G S Q R V A A H I T G T S R R S S T F P I P S S K N E K A L G Q K I N S										
1	V R E R G P Q R V A A H I T G T S R R S S T F P I P S S K N E K A L G Q K I N S										
W E S S R K G H S F L N N L H L R N G E L V I H Q R G F Y Y I Y S Q T Y F R F Q											
		50	60	70	80						
41	W E S S R S G H S F L N N L H L R N G E L V I H E K G F Y Y I Y S Q T Y F R F Q										
41	W E S S R K G H S F L N N L H L R N G E L V I E Q G L Y Y I Y S Q T Y F R F Q										
40	W D S T R K G H S F L N N L H L R N G E L V I H Q R G F Y Y I Y S Q T Y F R F Q										
41	W E S S R K G H S F L N N L H L R N G E L V I H Q R G F Y Y I Y S Q T Y F R F Q										
E P E E I P T - - G Q N R K R N K Q M V Q Y I Y K H T S Y P D P I L L M K S A R											
		90	100	110	120						
81	E - - E I K - - - E N T K N D K Q M V Q Y I Y K Y T S Y P D P I L L M K S A R										
81	E A E D A S K M V S K D K V R T K Q L V Q Y I Y K Y T S Y P D P I L L M K S A R										
80	E P E E I P T - - G Q N R K R N K Q M V Q Y I Y K H T S Y P D P I L L M K S A R										
81	E P E E I P T - - G Q N R K R N K Q M V Q Y I Y K H T S Y P D P I L L M K S A R										

hu_Trail_sh.PRO
mo_Trail_sh.PRO
canine_Trail_sh.PRO
feline_Trail2_sh.PRO

Majority

hu_Trail_sh.PRO
mo_Trail_sh.PRO
canine_Trail_sh.PRO
feline_Trail2_sh.PRO

Majority

hu_Trail_sh.PRO
mo_Trail_sh.PRO
canine_Trail_sh.PRO
feline_Trail2_sh.PRO

FIG. 7B

N S C W S K D A E Y G L Y S I Y Q G G I F F E L K E N D R I F V S V S N E Q L I D Majority																																											
130																																											
140																																											
150																																											
160																																											
115	N	S	C	W	S	K	D	A	E	Y	G	L	Y	S	I	Y	Q	G	G	I	F	F	E	L	K	E	N	D	R	I	F	V	S	V	T	N	E	H	L	I	D	hu_Trail_sh.PRO	
121	N	S	C	W	S	R	D	A	E	Y	G	L	Y	S	I	Y	Q	G	G	L	F	F	E	L	K	K	E	N	D	R	I	F	V	S	V	T	N	E	H	L	M	D	mo_Trail_sh.PRO
118	N	S	C	W	S	K	D	S	E	Y	G	L	Y	S	I	Y	Q	G	G	I	F	F	E	L	K	E	N	D	R	I	F	V	S	V	S	N	E	Q	L	I	D	canine_Trail_sh.PRO	
119	N	S	C	W	S	K	D	S	E	Y	G	L	Y	S	I	Y	Q	G	G	I	F	F	E	L	K	E	N	D	R	I	F	V	S	V	S	N	E	Q	L	I	D	feline_Trail2_sh.PRO	
M D Q E A S F F G A F L I G -													Majority																														
170																																											
155	M	D	H	E	A	S	F	F	G	A	F	L	V	G	.	hu_Trail_sh.PRO																											
161	L	D	Q	E	A	S	F	F	G	A	F	L	I	N	.	mo_Trail_sh.PRO																											
158	M	D	Q	E	A	S	F	F	G	A	F	L	I	G	.	canine_Trail_sh.PRO																											
159	M	D	Q	E	A	S	F	F	G	A	F	L	I	G	.	feline_Trail2_sh.PRO																											

FIG. 8A

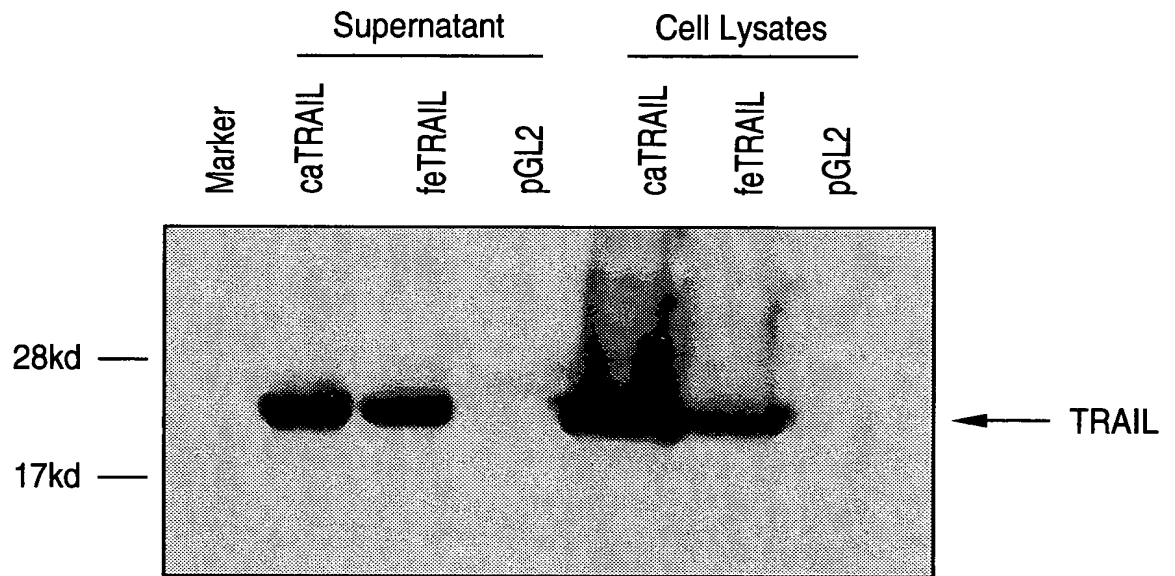


FIG. 8B

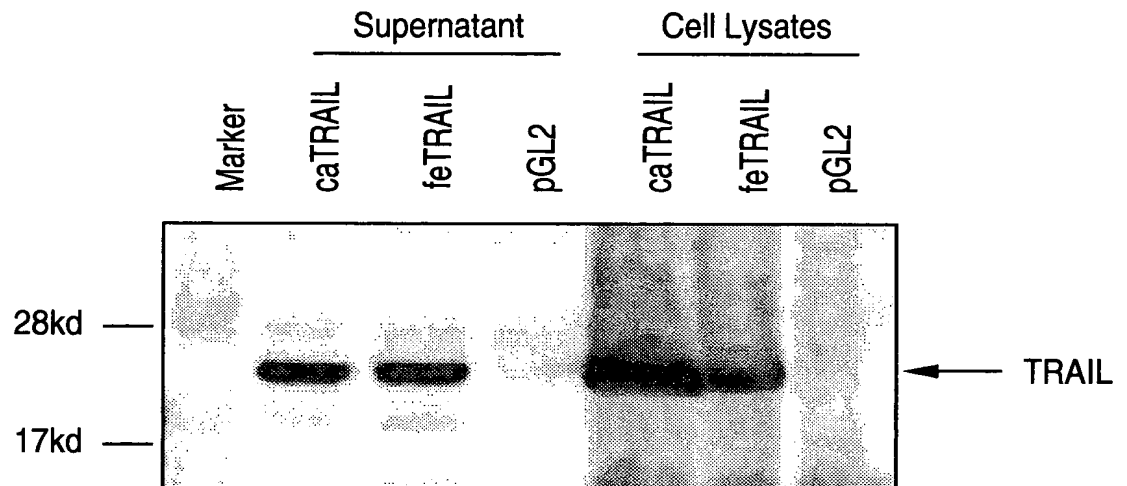


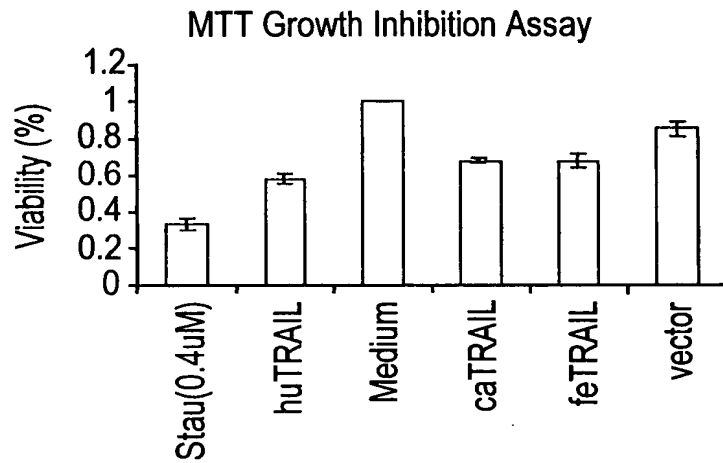
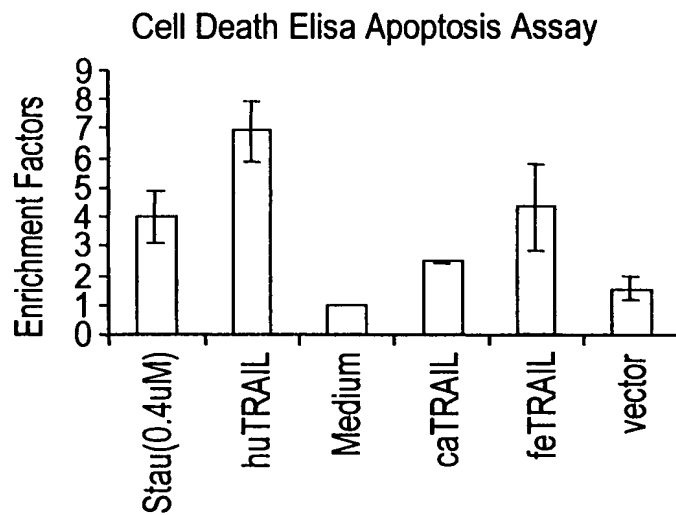
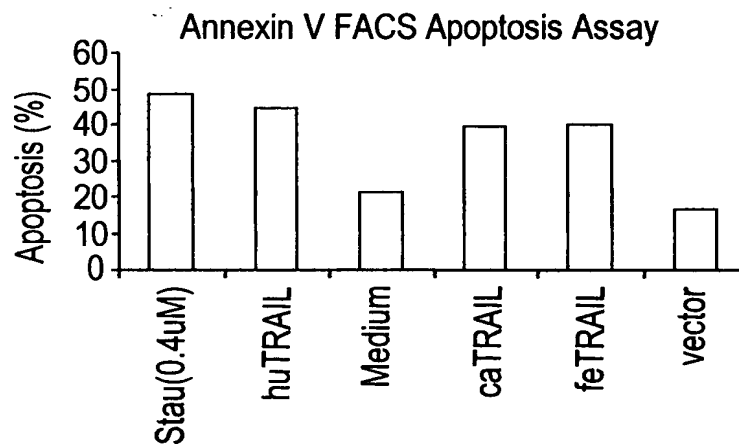
FIG. 9A**FIG. 9B****FIG. 9C**

FIG. 10A

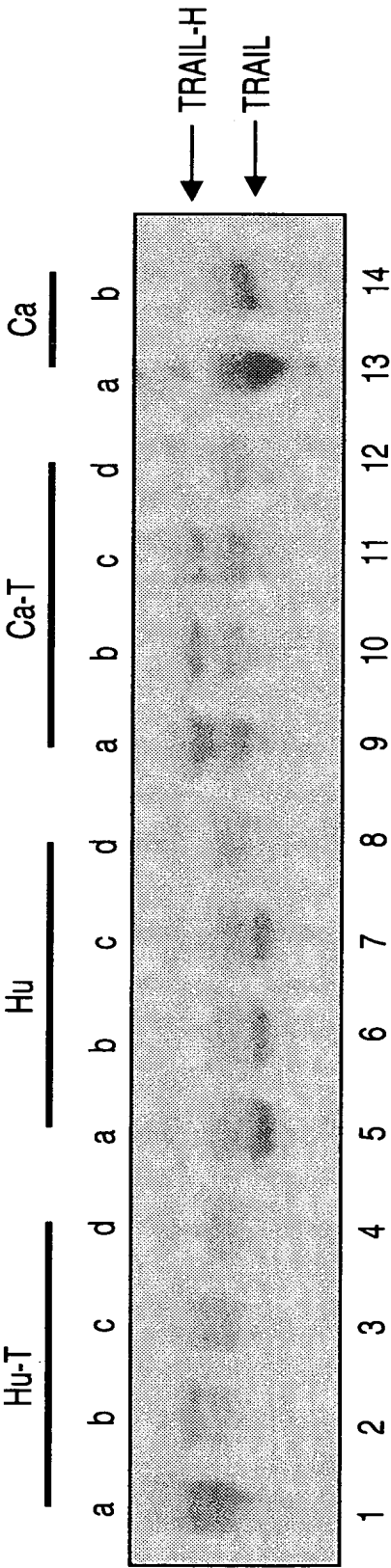


FIG. 10B

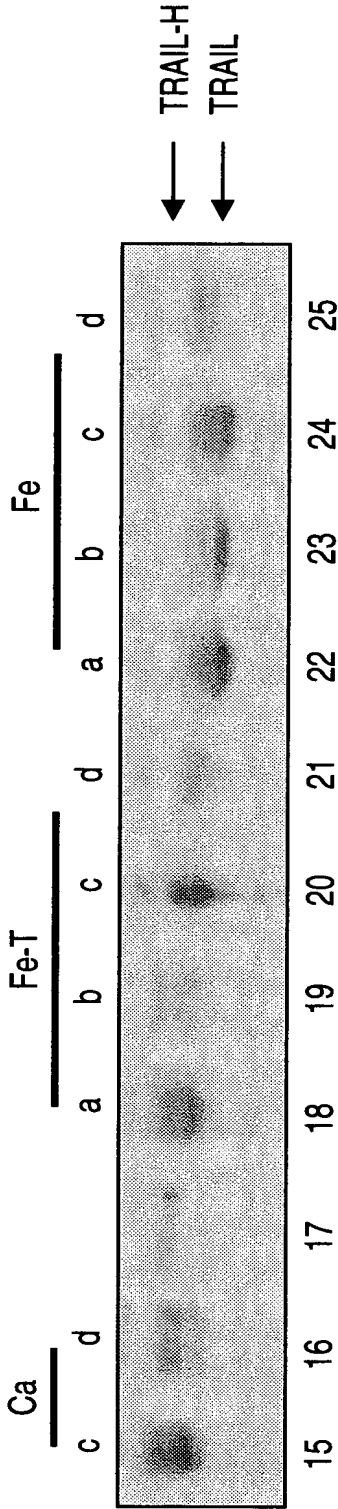


FIG. 11A

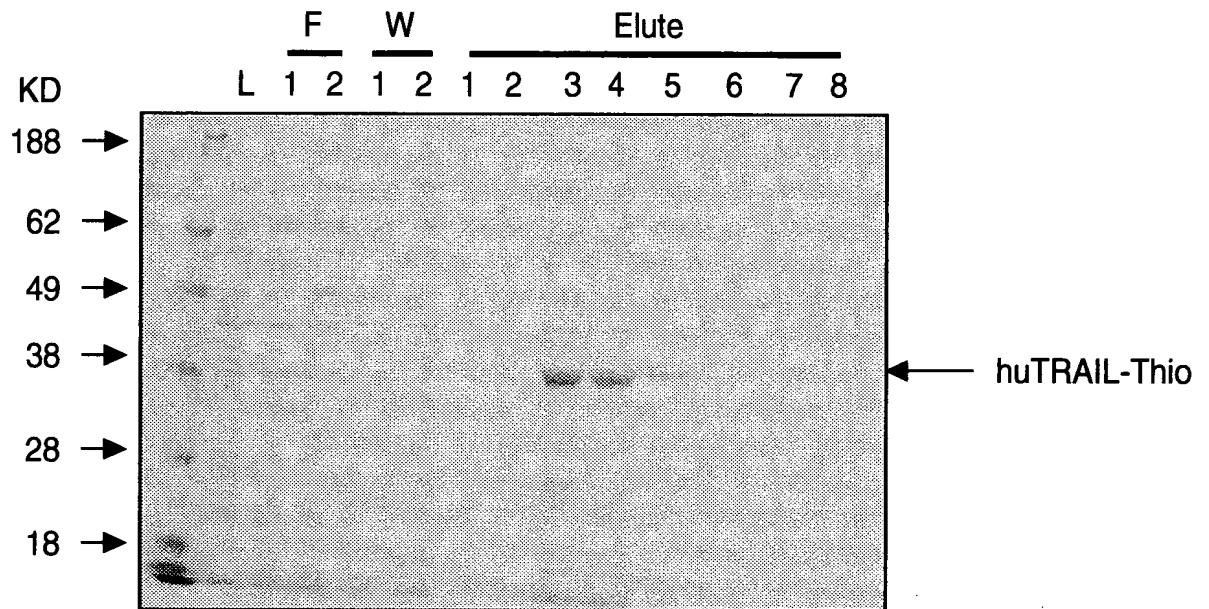


FIG. 11B

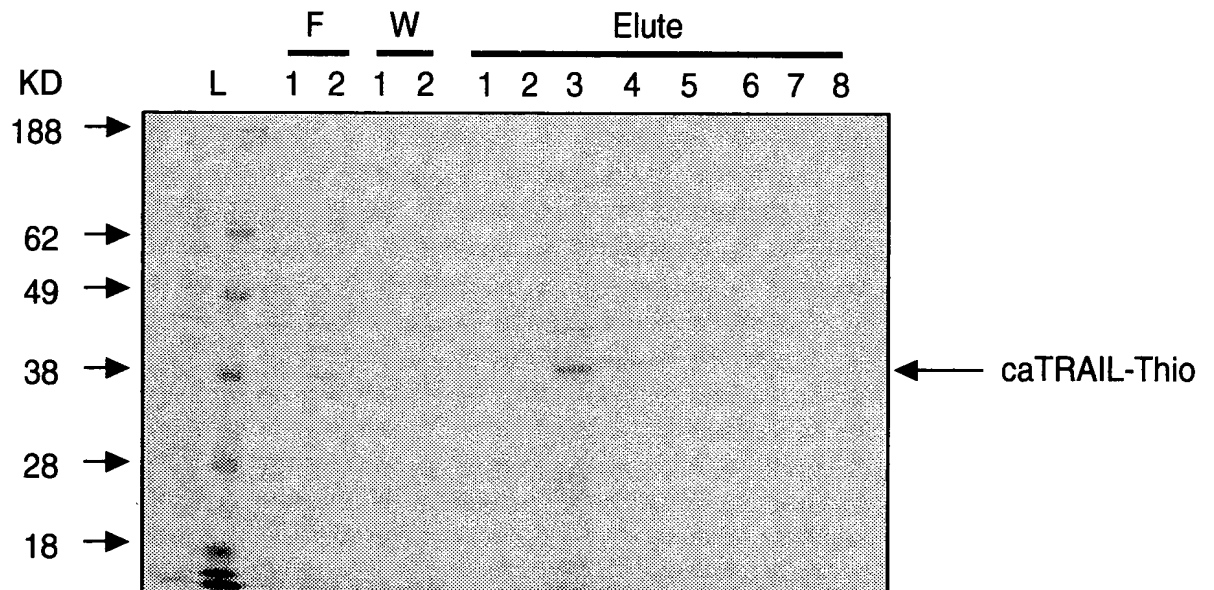


FIG. 12

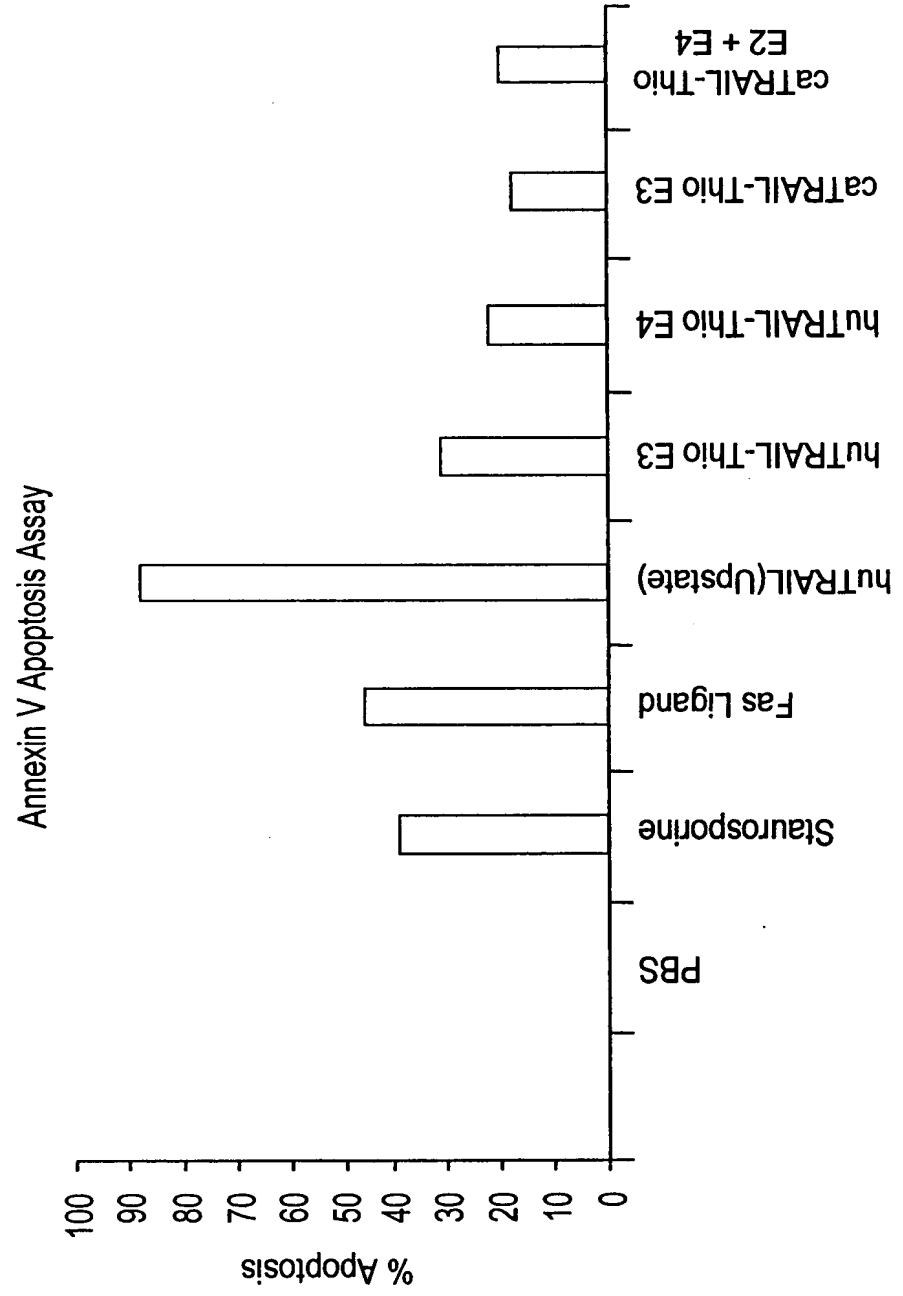


FIG. 13A

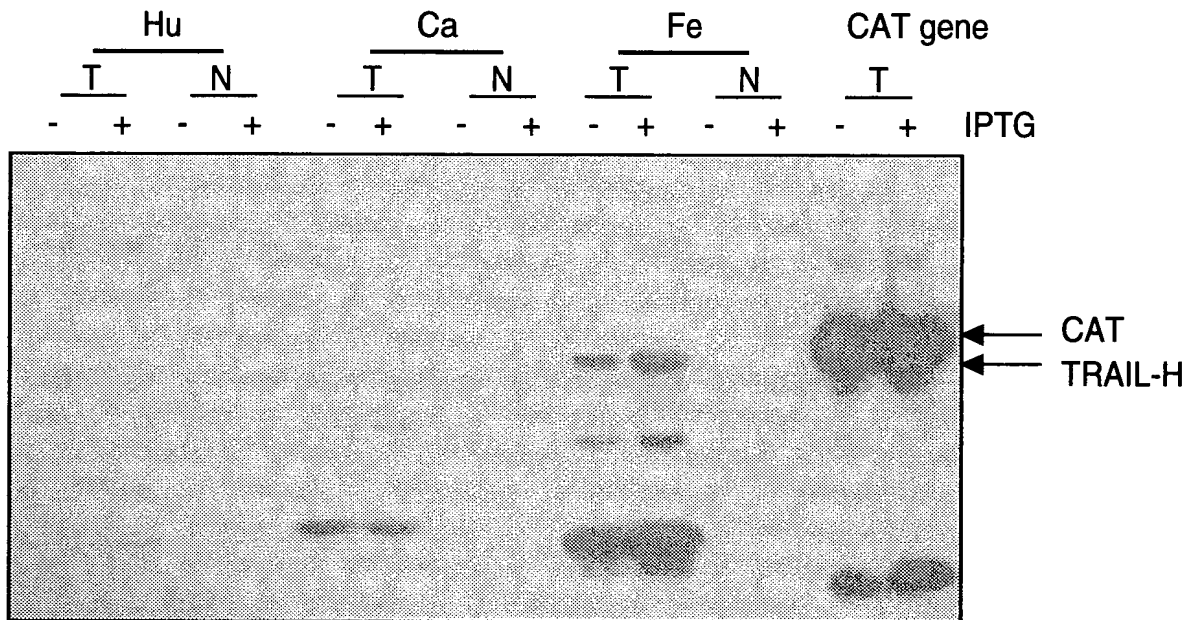
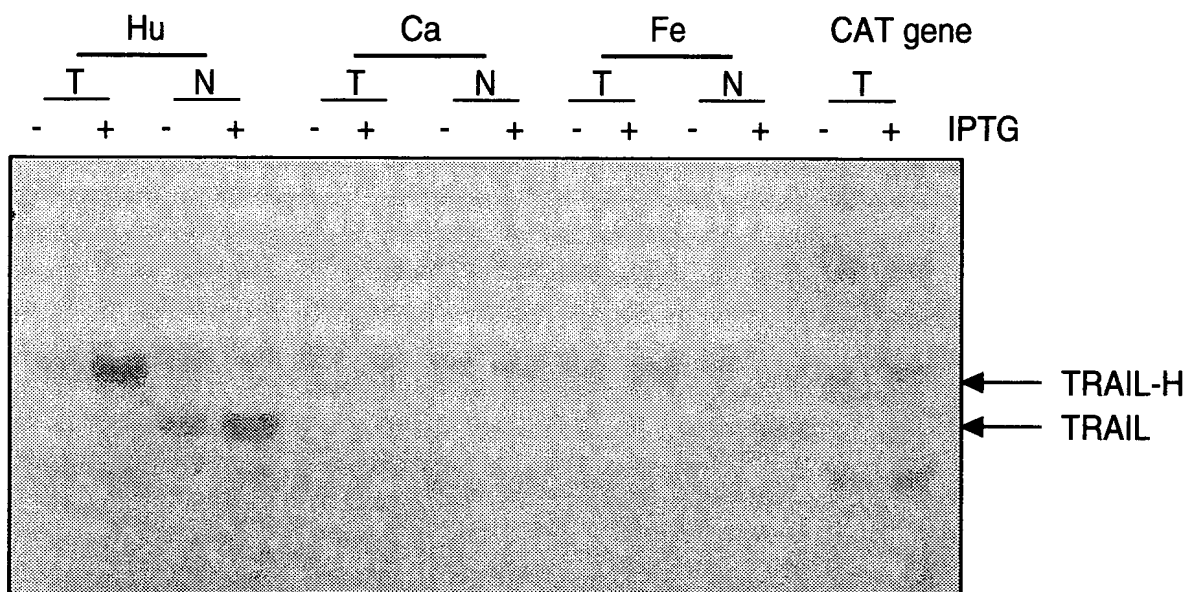


FIG. 13B



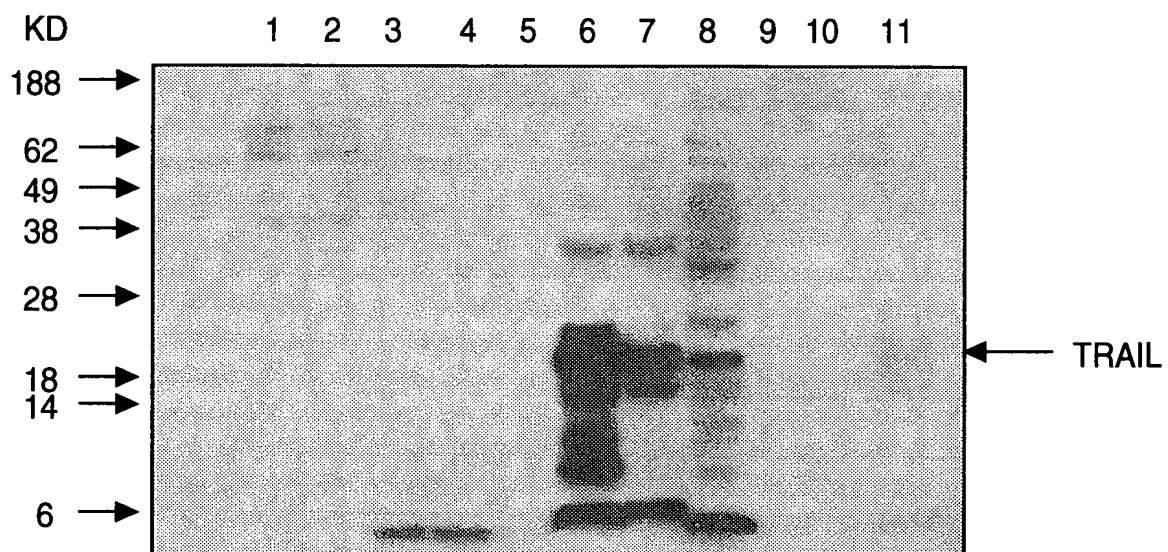
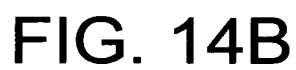


FIG. 15A

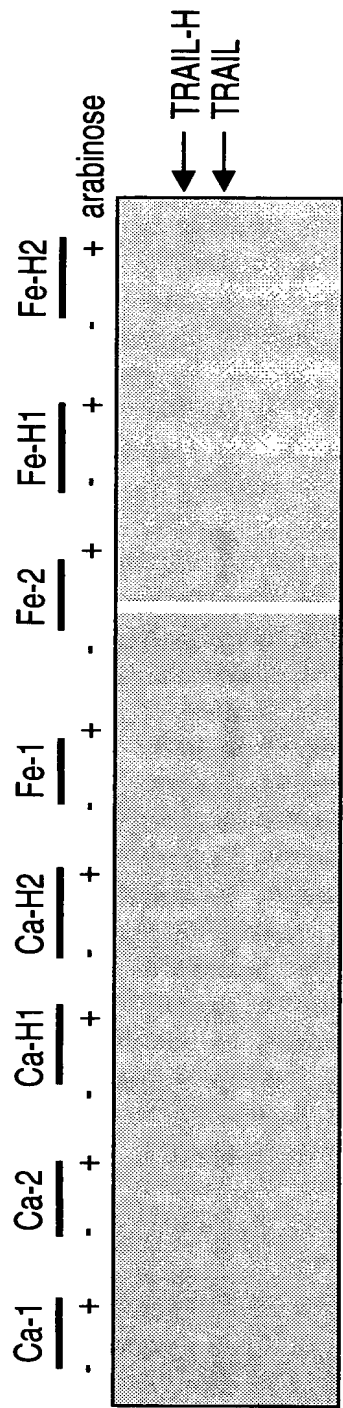


FIG. 15B

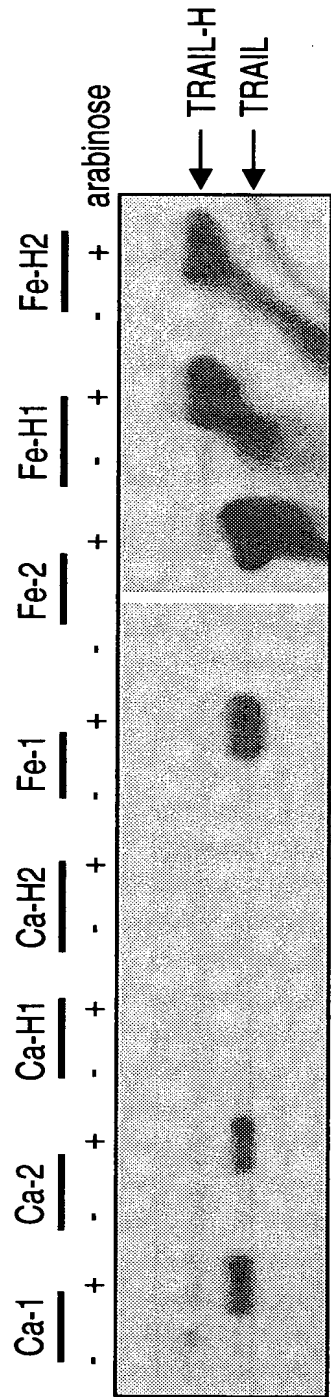


FIG. 15C

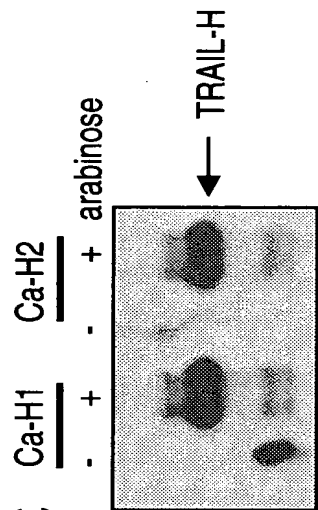


FIG. 16A

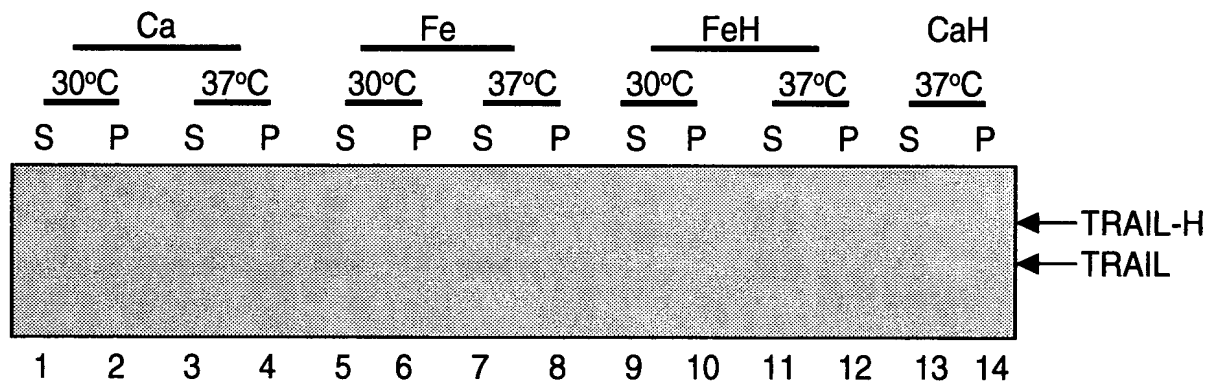


FIG. 16B

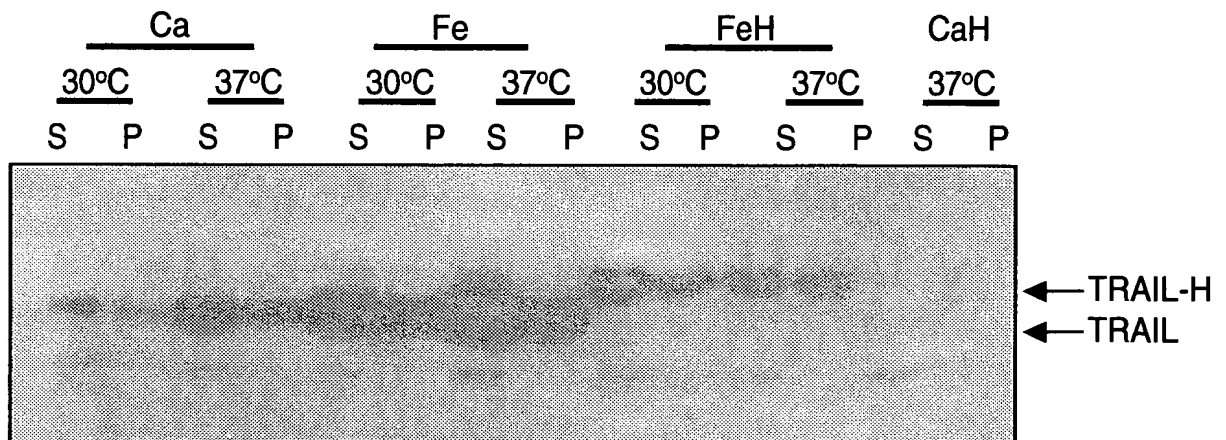


FIG. 17A

Elute

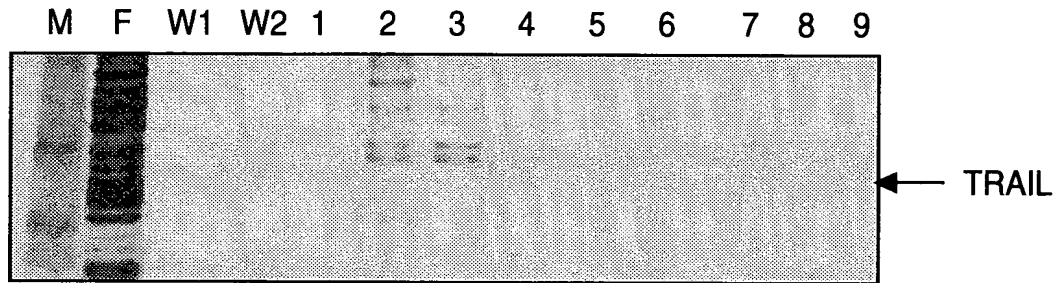


FIG. 17B

Elute

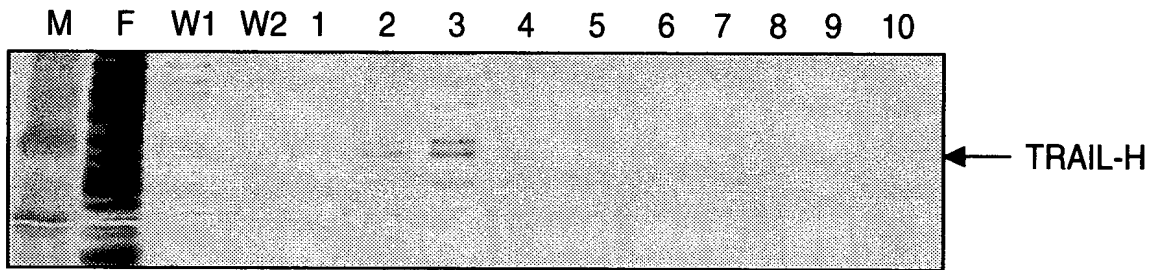


FIG. 17C

Elute

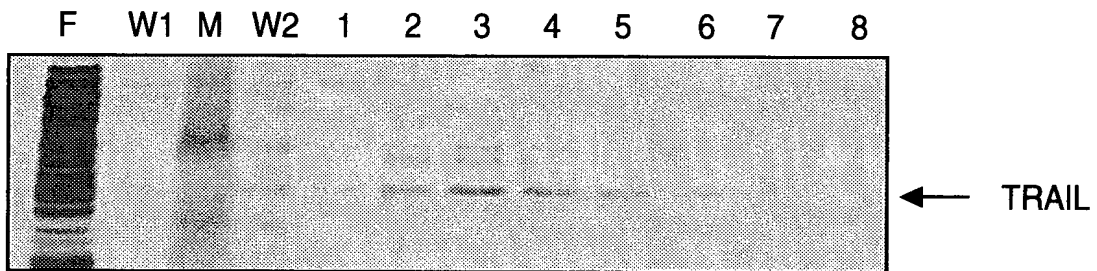
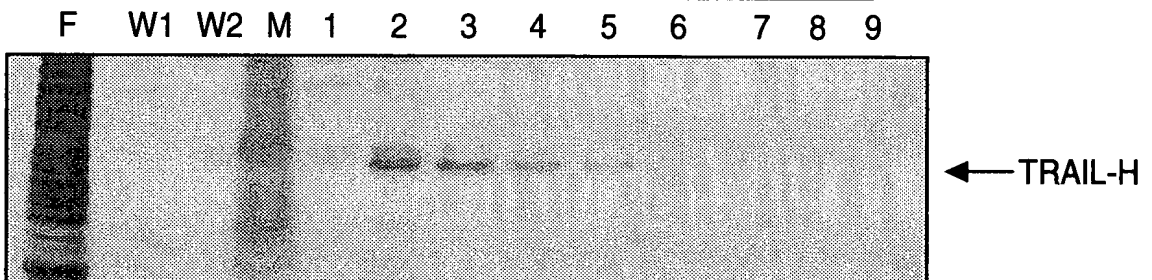


FIG. 17D

Elute



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FIG. 17E

Elute

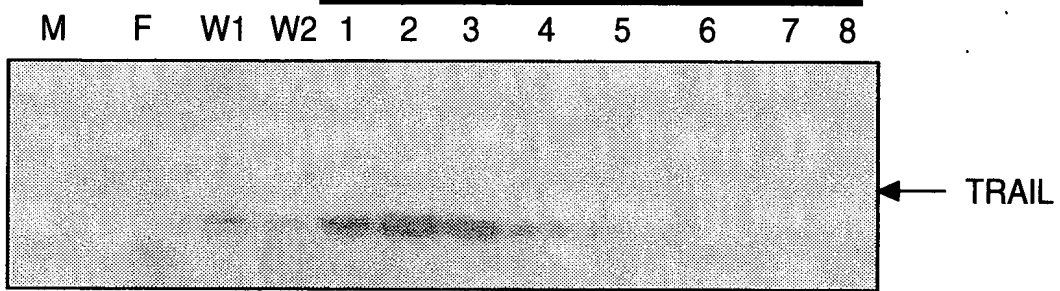


FIG. 17F

Elute

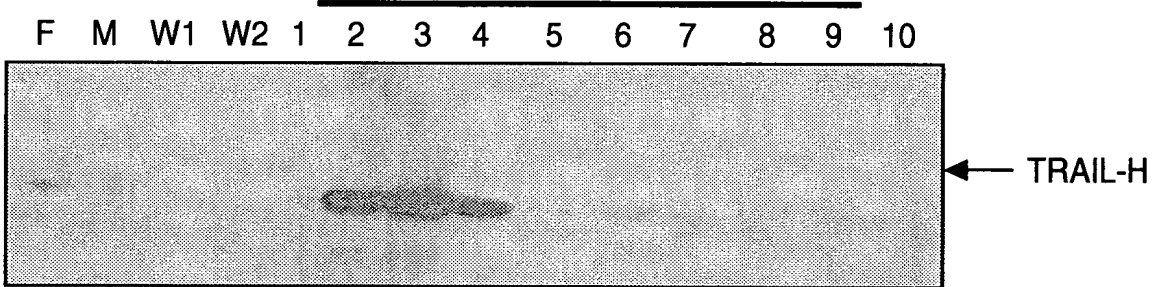


FIG. 17G

Elute

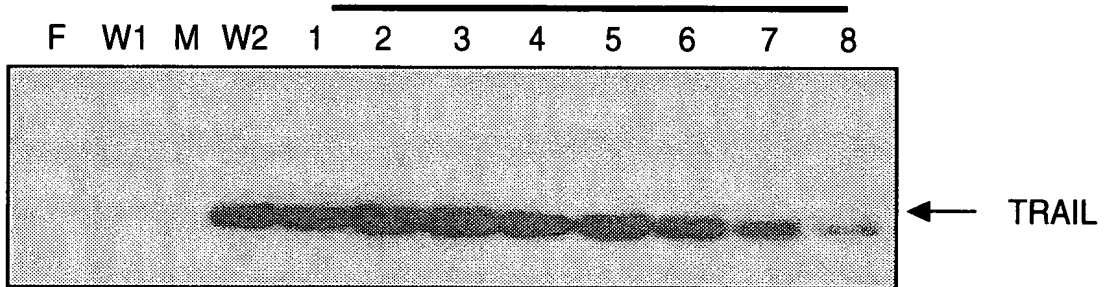
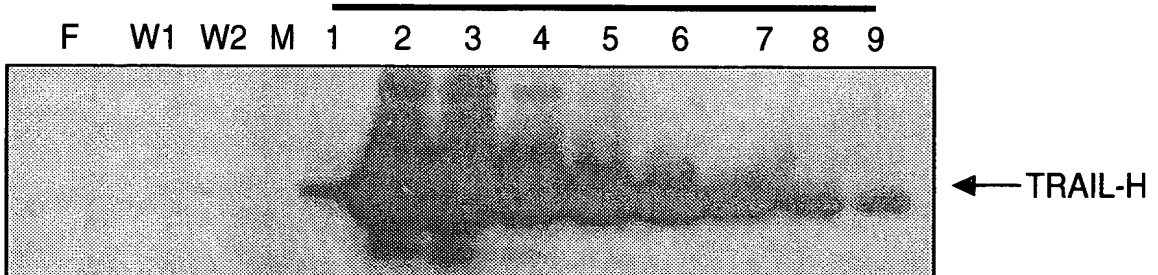


FIG. 17H

Elute



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FIG. 18A

MTT Growth inhibition Assay

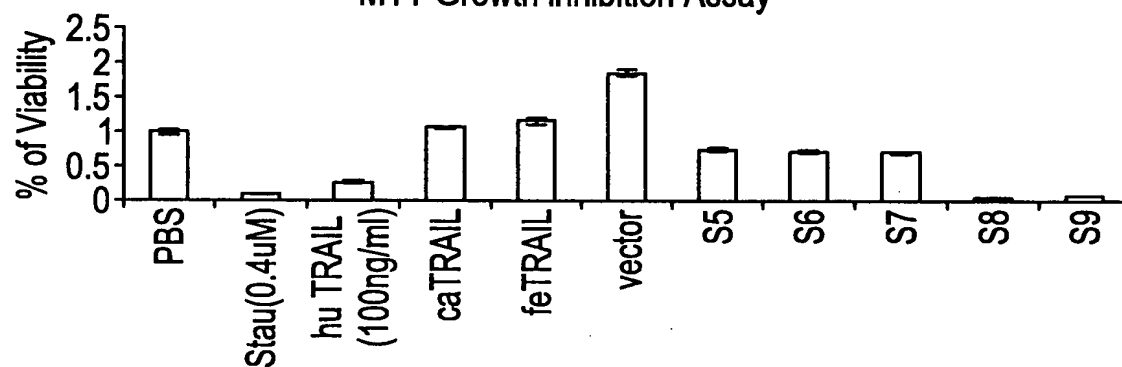


FIG. 18B

Cell Death Elisa Apoptosis Assay

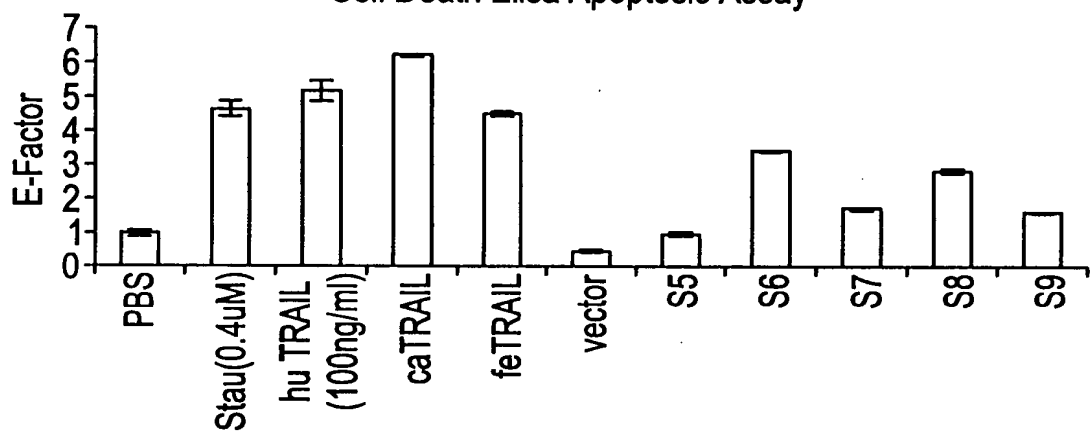


FIG. 18C

Annexin V FITC Apoptosis Assay

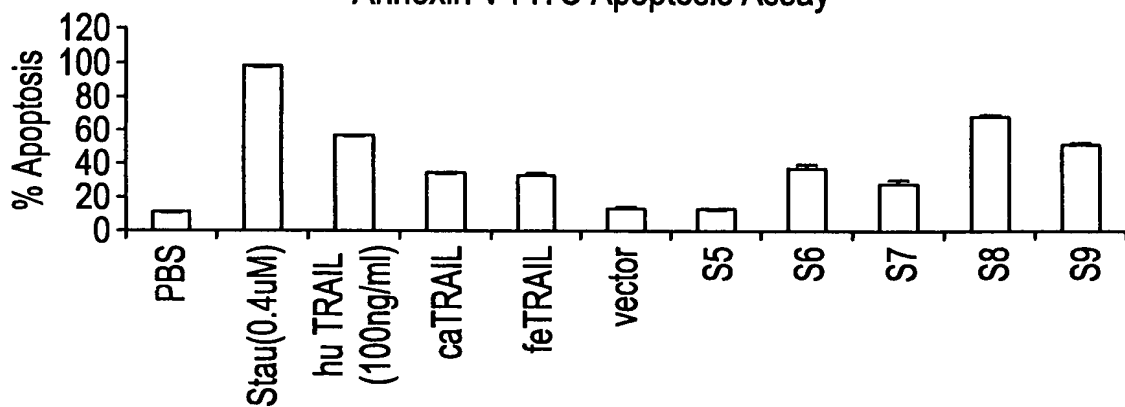
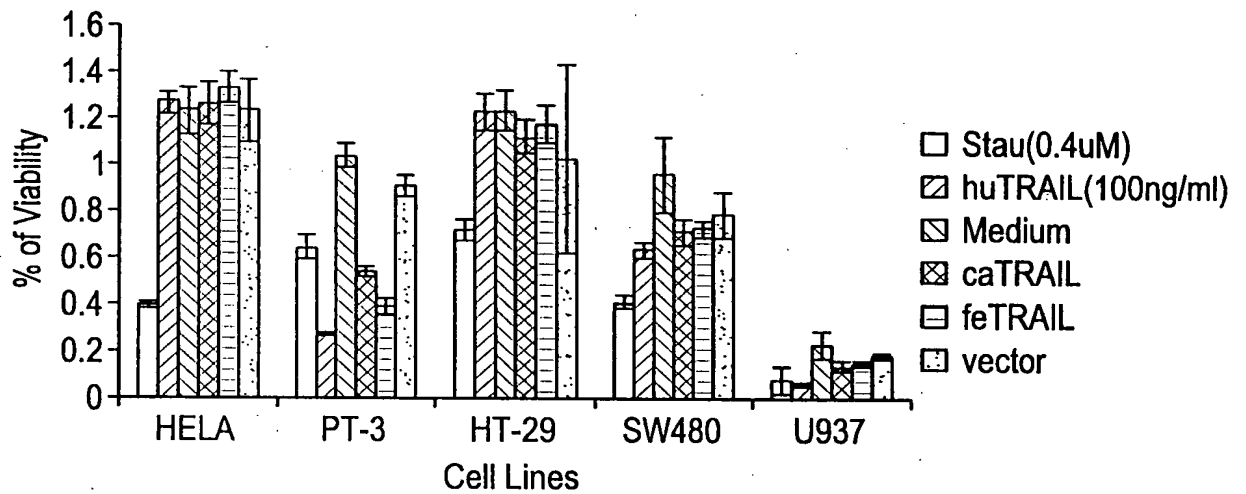
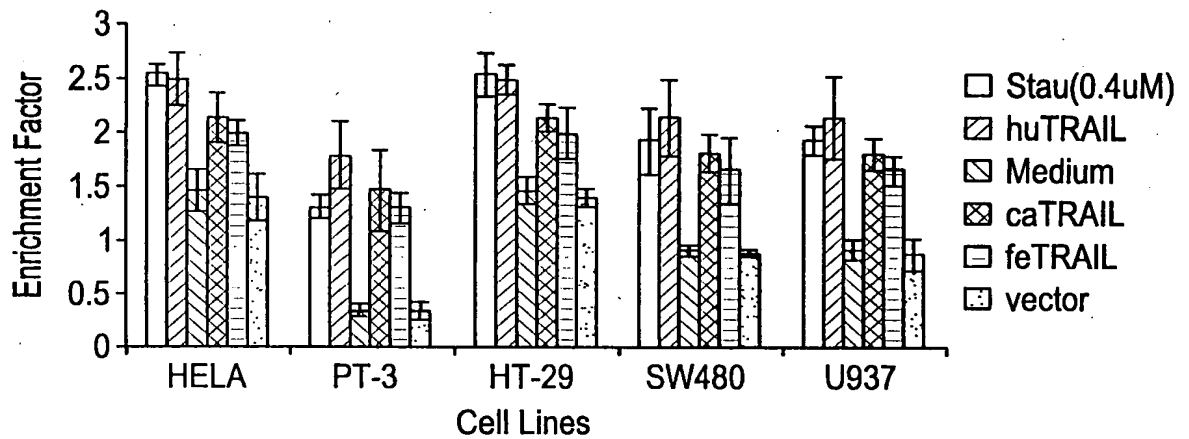


FIG. 19A

MTT Growth Inhibition Assay

**FIG. 19B**

Cell Death Elisa Apoptosis Assay



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FIG. 20A

MTT Growth Inhibition Assay for Canine
Cell Lines

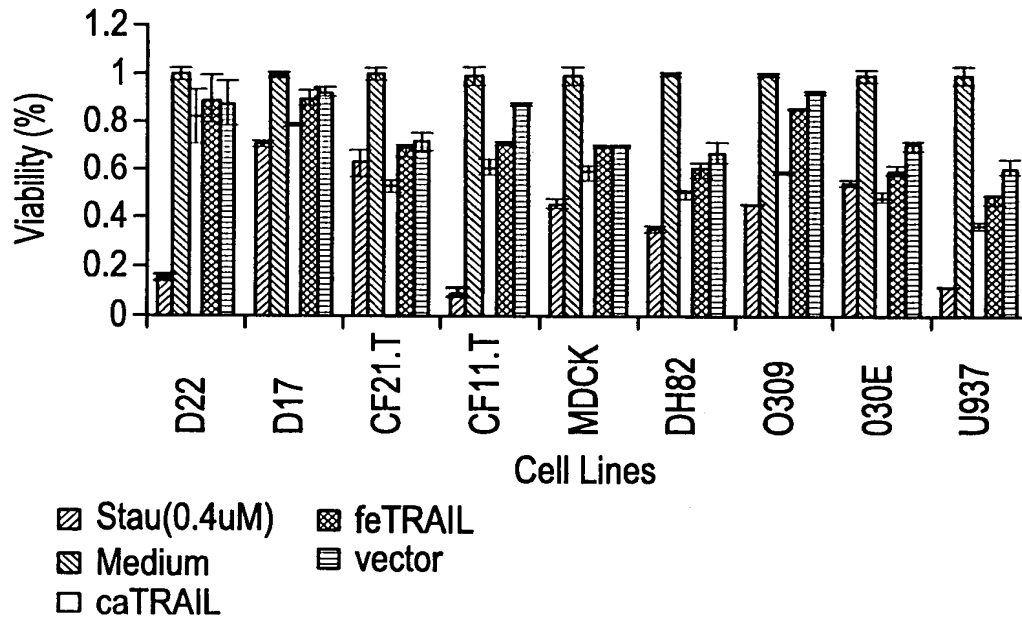


FIG. 20B

Cell Death Elisa Apoptosis Assay for Canine Cell Lines

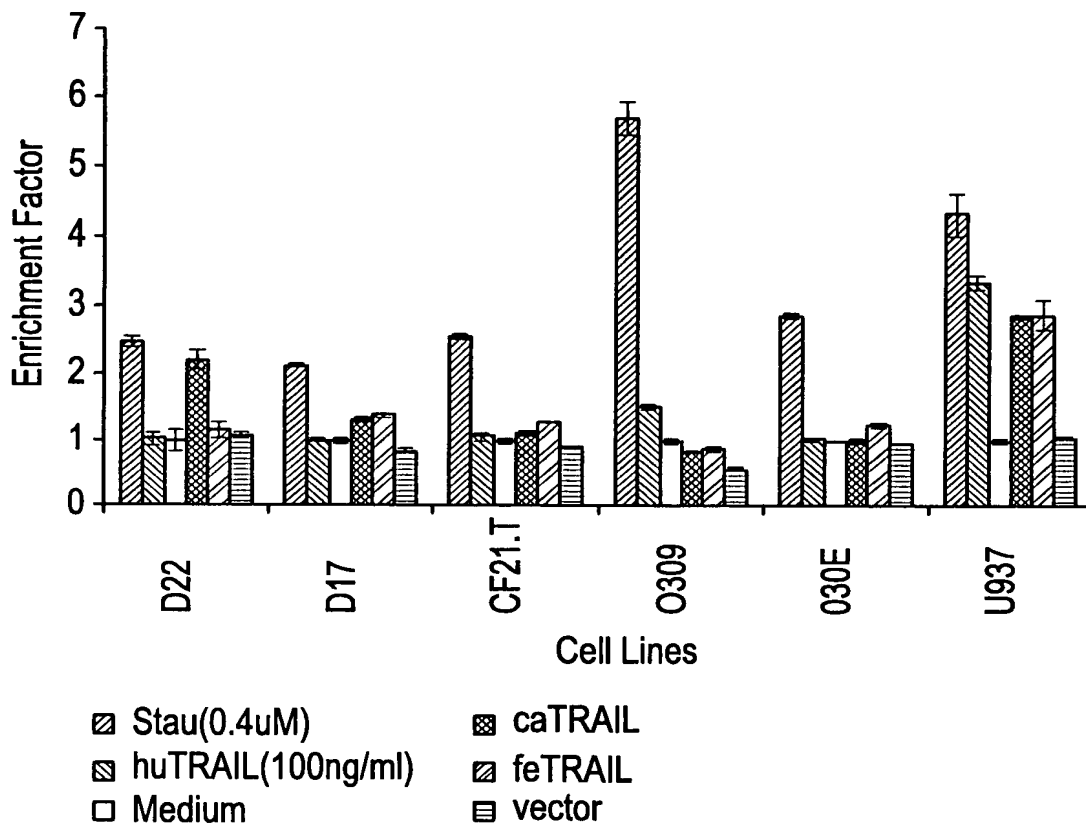


FIG. 21A

MTT Growth Inhibition Assay

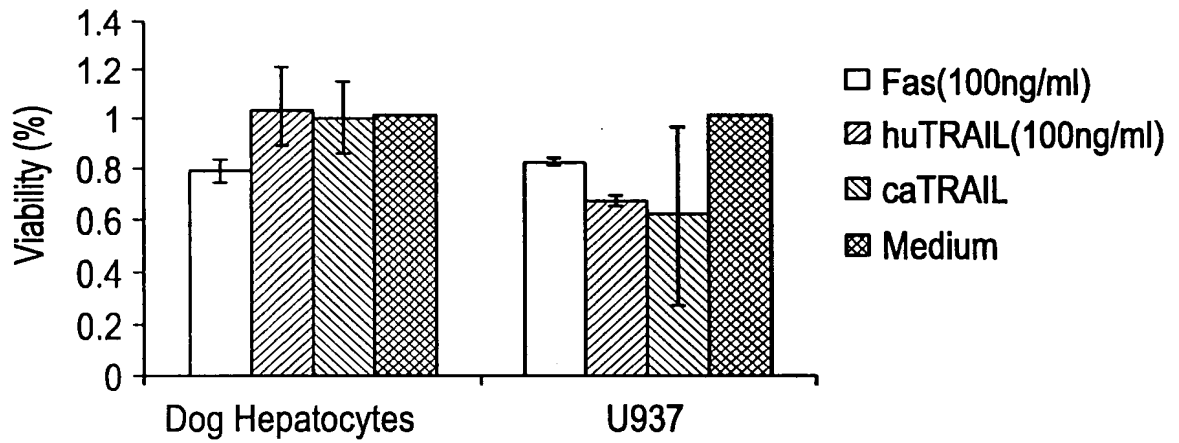


FIG. 21B

Cell Death Elisa Apoptosis Assay

